Appl. No.

09/514,999

Filed

February 29, 2000

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows. Insertions are shown <u>underlined</u> while deletions are struck through.

- 1. (canceled)
- 2. (currently amended): The method according to Claim 10, wherein said nuclease is a nuclease contained in the yeast somatic components yeast RNA-containing composition.
- 3. (currently amended): The method according to Claim 10, wherein the yeast somatic components-yeast RNA-containing composition are is obtained from yeast selected from the group consisting of Saccharomyces cerevisiae and Candida utilis.
- 4. (currently amended): The method according to Claim 15, wherein the decomposition step is conducted by digesting the <u>yeast somatic components yeast RNA-containing composition</u> with nuclease added to a solution containing the <u>yeast somatic components yeast RNA-containing composition</u>, at a pH value of 3 -10 and at a temperature of 10-70°C.
- 5. (currently amended): The method according to Claim 15, wherein the decomposition step is conducted by hydrolyzing at 20-100°C the yeast somatic components yeast RNA-containing composition with alkali added to a solution containing the yeast somatic components yeast RNA-containing composition at a normality of 0.1-5N.
- 6. (currently amended): The method according to Claim 10, wherein the yeast somatic components yeast RNA-containing composition are is an extract obtained by physically crushing yeast using a high-pressure homogenizer and an ultrasonic disintegrator.
- 7. (currently amended): The method according to Claim 10, wherein the yeast somatic components yeast RNA-containing composition are is an extract obtained from yeast using hot water at a pH value of 4-8 and at a temperature of 90-100°C, wherein sodium chloride is added to a yeast suspension with a yeast concentration of 5-25% to make a salt concentration of 1-10%.
- 8. (currently amended): The method according to Claim 10, wherein the yeast somatic components yeast RNA-containing composition are is an extract obtained by autolyzing yeast.
 - 9. (canceled)

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10. (currently amended): A method of obtaining polyamines, comprising the steps of: providing yeast somatic components_a yeast RNA-containing composition-selected from the group consisting of extracts obtained from yeast by physical crushing, extracts obtained from yeast by autolysis, extracts obtained from yeast with hot water, and yeast RNA compositions;

subjecting said—yeast somatic components yeast RNA-containing composition to a decomposition step, comprising nuclease digestion or alkali hydrolysis, of increasing the yield of polyamines recovered in a subsequent recovery step by approximately 2-3.2 times the yield of polyamines recovered in the subsequent recovery step without this decomposition step, under conditions where the yield with this decomposition step when continuing for approximately 15-18 hours is approximately 2-3.2 times the yield without this decomposition step, wherein said yeast somatic components—yeast RNA-containing composition are is treated in solution with nuclease added in a concentration of approximately 1-2 mg/ml, at approximately 25-37°C, and at a pH of approximately 6-8, or said yeast somatic components—yeast RNA-containing composition are is dissolved in a 0.3 N alkali solution at 37°C; and

recovering polyamines from the decomposed yeast somatic components yeast RNA-containing composition produced.

- 11. (previously presented): The method according to Claim 10, wherein the nuclease is selected from the group consisting of deoxyribonuclease I, nuclease P1, nuclease S1, phosphodiesterase I, ribonuclease A, ribonuclease B, ribonuclease T_1 , ribonuclease T_2 , and ribonuclease T_2 .
- 12. (previously presented): The method according to Claim 10, wherein the alkali is sodium hydrate or potassium hydroxide.
 - 13. (canceled)
- 14. (currently amended): A method of obtaining polyamines, comprising the steps of: providing yeast-somatic-components-a yeast RNA-containing composition-selected from the group consisting of extracts obtained from yeast by physical crushing, extracts obtained from yeast by autolysis, extracts obtained from yeast with hot water, and yeast RNA compositions;

subjecting said yeast somatic components <u>yeast RNA-containing composition</u> to a decomposition step, comprising nuclease digestion or alkali hydrolysis, of increasing the yield of polyamines recovered in a subsequent recovery step by approximately 2-3.2 times the yield of

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polyamines recovered in the subsequent recovery step without this decomposition step, under conditions where said yeast somatic components yeast RNA-containing composition areis treated in solution with nuclease added in a concentration of approximately 1-2 mg/ml, at approximately 25-37°C, and at a pH of approximately 6-8, or said yeast somatic components yeast RNA-containing composition areis dissolved in a 0.3 N alkali solution at 37°C; and

recovering polyamines from the decomposed yeast somatic components yeast RNA-containing composition produced.

15. (currently amended): A method of obtaining polyamines, comprising the steps of: providing yeast somatic components a yeast RNA-containing composition-selected from the group consisting of extracts obtained from yeast by physical crushing, extracts obtained from yeast by autolysis, extracts obtained from yeast with hot water, and yeast RNA compositions;

decomposing said yeast somatic components—yeast RNA-containing composition by nuclease digestion or alkali hydrolysis to separate polyamines from high-molecular weight substances in the yeast somatic components—yeast RNA-containing composition to a degree achieved when the yeast somatic components—yeast RNA-containing composition are is treated for about 15-18 hours in solution with nuclease added in a concentration of about 1-2 mg/ml, at about 25-37°C, and at a pH of about 6-8, or in an about 0.3 N alkali solution at about 37°C; and

recovering polyamines from the decomposed yeast somatic components yeast RNA-containing composition produced.